Abstract of the Disclosure

An ad-hoc wireless communication network includes multiple nodes. Each node maintains a routing table. The routing table is constructed by broadcasting route request packets from a source node. The request packet includes an address of a destination node. Intermediate nodes in the network receiving the request packet, determine power and delay cost associated with the intermediate node participating in the route. If the cost is less than a threshold value, then the intermediate node participates in the routing of packets for other nodes. The intermediate node then sends a reply packet back to the source node. The reply packet includes the intermediate node addresses, as well as the power and delay costs. The source can thus construct the routing table. The source node can select a particular node for transferring application data packets based on either the power cost, the delay cost or both costs.